Aquatrols®

RESEARCH SUMMARY

Performance of Aquatrols Aqueduct in GCSAA-USGA Wetting Agent Study

(Nine sites across the United States 2003, 2004)

Research Coordinator: Dr. Clark Throssell

Objective: To determine the effectiveness of selected wetting agents for managing localized dry spot on putting greens.

Study Details

Locations:

- Nine locations across the United States
- See table for details

Site Conditions:

- High-sand-content putting greens with a history of localized dry spot (LDS).
- Bentgrass or bermudagrass as dominant species
- Maintained as high-quality putting turf

Treatments:

- Aquatrols Aqueduct – 8 oz/1000 ft^2 in 1 gal water (25 L/Ha in 408 L water) applied twice one week apart, then monthly for the duration of the trial.
- Nine other products applied according to label rates
- Untreated control

Test period:

- Four month periods in both 2003 and 2004 when LDS stress was greatest for each location

Evaluations:

- Degree of soil water repellency (WDPT)
- Turfgrass quality and color
- Phytotoxicity

Effectiveness of Aqueduct for Reducing Water Repellency

Trial site & year	Significant effect	Among best performing products
Athens, GA 03	Yes	Yes
Athens, GA 04	Yes	Yes
East Lansing, MI 03	Yes	Yes
East Lansing, MI 04	Yes	Yes
Ft. Lauderdale, FL 03	Yes	Yes
Ft. Lauderdale, FL 04	Yes	Yes
Las Cruces, NM 03	No	No
Montebello, CA 03	Yes	No
Montebello, CA 04	Yes	Yes
Puyallup, WA 03	Yes	Yes
Puyallup, WA 04	Yes	Yes

Results

General Note

- Of the 18 test sites (two years x nine sites) there were 11 sites where significant soil water repellency occurred. (Unusually wet weather occurred at the other sites during the test period preventing water repellency from developing.) Results are reported for these 11 trials.

Soil water repellency

- Aqueduct significantly reduced water repellency in 10 of the 11 trials.
- In 9 of the 11 trials Aqueduct performed better than or equal to other products.

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Turf Quality and Color

- Aquatrols Aqueduct resulted in significantly better turf quality compared to the control in two trials and quality that was statistically equal to the control in seven of the trials.

Phytotoxicity

- In eight of the 11 trials, Aqueduct exhibited no phytotoxicity.

For further details on the study – refer to the Research section of the April 2005 issue of Golf Course Management available at: www.gcsaa.org/GCM/2005/april05/04Re.asp

Conclusion

Aquatrols Aqueduct is effective at reducing soil water repellency across a wide range of climatic conditions.